

VisGap 2021

The Gap between Visualization Research and Visualization Software

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Table of Contents

Table of Contents	iii
International Programme Committee	iv
Author Index	v
Keynotes	vi
Session 1	
OSPRay Studio: Enabling Multi-Workflow Visualizations with OSPRay	1
<i>Isha Sharma, Dave DeMarle, Alok Hota, Bruce Cherniak, and Johannes Günther</i>	
Property-Based Testing for Visualization Development	9
<i>Michael Stegmaier, Dominik Engel, Jannik Olbrich, Timo Ropinski, and Matthias Tichy</i>	
Session 2	
Tools for Virtual Reality Visualization of Highly Detailed Meshes	19
<i>Mark B. Jensen, Egill I. Jacobsen, Jeppe Revall Frisvad, and J. Andreas Bærentzen</i>	
The Gap between Visualization Research and Visualization Software in High-Performance Computing Center	27
<i>Tommy Dang, Ngan Nguyen, Jon Hass, Jie Li, Yong Chen, and Alan Sill</i>	

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Author Index

Bærentzen, J. Andreas	19	Jacobsen, Egill I.	19
Chen, Yong	27	Jensen, Mark B.	19
Cherniak, Bruce	1	Li, Jie	27
Dang, Tommy	27	Nguyen, Ngan	27
DeMarle, Dave	1	Olbrich, Jannik	9
Engel, Dominik	9	Ropinski, Timo	9
Frisvad, Jeppe Revall	19	Sharma, Isha	1
Günther, Johannes	1	Sill, Alan	27
Hass, Jon	27	Stegmaier, Michael	9
Hota, Alok	1	Tichy, Matthias	9

Keynote

Lessons for Sustainable Visualization Systems Learned from the Inviwo Development

Timo Ropinski

Ulm University, Germany

Abstract

To enable both basic and applied research in visualization, it is essential to have access to reliable visualization systems. Only with such systems, an easy comparison with the state of the art as well as the exploitation of reusable components becomes possible. As the development and maintenance of such visualization systems lead to several challenges, I will address these in my talk and discuss how we have tackled them during the development of Inviwo (www.inviwo.org). Inviwo is a flexible visualization framework that is targeted to scientific visualization. It has been used in several research projects and industry projects, whereby diverse applications were supported through carefully designed usage abstraction scenarios. In this context, I will talk about technical and organizational challenges and derive a few lessons we have learned during the development process.

Short Biography

Timo Ropinski is a Professor in Visual Computing at Ulm University, Germany, where he is heading the Visual Computing Research Group. Before moving to Ulm, he was Professor in Interactive Visualization at Linköping University, Sweden. Timo holds a PhD from the University of Münster, Germany, where he also finished his Habilitation. His research interests lie in data visualization and visual data analysis. Together with his research group, Timo works on biomedical visualization techniques, rendering algorithms and deep learning models for spatial data. Most of the visualization related research projects are realized through own software frameworks, most prominently through the Inviwo Interactive Visualization Workshop. Inviwo was initiated in 2012, and is now primarily developed at Linköping University, Ulm University and KTH Royal Institute of Technology.

Keynote

The Role of Visualization in Decision Support Systems – Differences Between Academia and Industry

Benedikt Kämpgen

Empolis Information Management GmbH, Germany

Abstract

In this presentation, Benedikt will look back at working on decision support systems for over 10 years, half of which in academia, the other in industry. He will specifically try to answer the question of what it takes to have visualization approaches applied in either work environment, and what are the differences thereof.

Short Biography

Benedikt Kämpgen is working as a team lead for Healthcare Analytics and Natural Language Processing at Empolis Information Management GmbH. He is interested in assistant systems helping knowledge workers to become more efficient and confident in their decisions. For that, together with his team and with partners Benedikt applies and extends the knowledge management and data analysis products of Empolis. His methods and technologies of choice include Natural Language Processing, Knowledge Graphs and Cloud Computing. Before joining Empolis in 2017 he worked for FZI Forschungszentrum Informatik, did his PhD in data integration at Karlsruhe Institute of Technology (KIT) and his Computer Science diploma at Julius-Maximilians-Universität Würzburg.